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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Charles E. Romano, et al

INK RECORDING ELEMENT HAVING ADHESION PROMOTING MATERIAL

Serial No. 10/068,446

Filed 06 February 2002

Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Group Art Unit: 1774

Examiner: Betelhem Shewareged

I hereby certify that this correspondence is being deposited today with the United States Postal Service as first class mail in an envelope addressed to Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Christine Tolhurst

Christine Tolhurst

Date July 14, 2004

DECLARATION UNDER RULE 132

1. I, Charles E. Romano, Jr., state that I am a resident and citizen of the United States. I obtained a Bachelor of Science degree in Chemistry from LeMoyne College in Syracuse, New York in 1982. I have been an employee of Eastman Kodak Company (hereinafter referred to as Kodak) since May of 1985. I have been assigned to work in product development and research of imaging processes, including areas relating to inkjet inks and inkjet elements.

2. I am one of the co-inventors of U.S. Serial No. US 10/068,446.

3. I have read and am familiar with the references cited in the Office Action mailed April 4, 2004.

4. One of ordinary skill in the art would understand that succinylated gelatin made from pigskin would not be the same as succinylated gelatin made from other sources.

5. I base this opinion on a discussion with Tom Keenan, Vice President Market and Technical Development/Strategic Coordination, of GELITA North America as follows:

"Succinic anhydride reacts with the amines that are present in gelatine. In general, we aim for 100% conversion of the amines to the succinate amides. This effectively converts the amines of lysine and hydroxylysine from cationic behavior to anionic behavior because converting succinic anhydride to the amide also exposes a free carboxylate that has anionic character.

Ward and Courts, The Science and Technology of Gelatin, reports amino acid compositions of gelatine per 1000 amino acid residues as follows:

Basic Amino Acids residues per 1000 residues		**Acidic Amino Acids** residues per 1000 residues	
Arginine	49	Aspartic Acid	45.8
Histidine	6	Glutamic Acid	72.1
Hydroxylysine	6.4	TOTAL	117.9
Lysine	26.6		

Usually, argenine and histidine do not react with succinic anhydride while hydroxylysine and lysine do. Thus, there are about (6.4 + 26.6) 33 amines (per 1000 residues) that can react.

The Type A (acidic) process used for making pigskin gelatine leaves most of the acidic amino acids as the corresponding amides (asparagine and glutamine), so the gelatine product has very few acidic (carboxylate) groups. After succinylation, it would have about 33 new acidic groups (per 1000 residues) resultant from converting the lysine and hydroxylysine.

The Type B (basic) process used for making bone gelatine converts the asparagine and glutamine to the corresponding acids. Succinylation would add another 33 groups (per 1000 residues) resulting in a total of about 151 acidic groups per 1000 residues - a reasonably anionic polymer! Before succinylation, bone gelatine would have about 118 acidic residues per 1000. "

6. I further declare that all statements made herein of my own knowledge are true and that the statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that

such willful false statements may jeopardize the validity of the application or any patent resulting therefrom.

Date: 7-13-04

Charles E Romano Jr.
Charles E. Romano, Jr.